

Application Number 10/687,336
Amendment responsive to Office Action mailed June 27, 2007

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-49 (Canceled)

Claim 50 (Currently Amended): A system for measuring physiological parameters in the body of a patient indicative of gastroesophageal reflux, the system comprising:

a plurality of sensors adapted to be implanted in the body of a patient, wherein each of the plurality of sensors periodically measures a physiological parameter indicative of gastroesophageal reflux and wherein each of the plurality of sensors periodically transmits a signal indicative of the physiological parameter that is indicative of gastroesophageal reflux and wherein each of the signals includes an identifier that is indicative of the sensor from which the signal is sent; and

a receiver that receives the signals from the plurality of sensors ~~and records the signals,~~
determines a location for each sensor within an esophagus based on the identifier, and monitors the physiological parameter indicative of gastroesophageal reflux as a function of distance based on the signals and the locations.

Claim 51 (Original): The system of Claim 50, wherein each of the plurality of sensors includes a pH monitor and an RF transmitter.

Claim 52 (Previously Presented): The system of Claim 51, wherein each of the plurality of sensors also includes a microprocessor that periodically receives a signal from the pH monitor and induces the RF transmitter to periodically send an RF signal indicative of the pH measured by the pH monitor.

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Claim 53 (Previously Presented): The system of Claim 52, wherein the microprocessor of each of the sensors periodically enables the pH monitor of the respective sensor during a first interval of each measurement cycle to obtain the pH signal and then disables the pH monitor during a second interval.

Claim 54 (Previously Presented): The system of Claim 53, wherein the microprocessor of each of the sensors enables the RF transmitter of the respective sensor during the second interval and disables the RF transmitter during periods of each cycle other than the second interval and disables the pH monitor of the respective sensor during periods of each cycle other than the first interval.

Claim 55 (Previously Presented): The system of Claim 50, wherein the identifier for each of the signals comprises at least one of a frequency or a code.

Claim 56 (Previously Presented): The system of Claim 50, wherein the receiver is configured to be worn by the patient.

Claim 57 (Previously Presented): The system of Claim 50, wherein the receiver includes circuitry to sense a position of the patient, and the receiver periodically records the position of the patient.

Claim 58 (New): The system of Claim 50, wherein the receiver monitors a change in pH as a function of distance from a lower esophageal sphincter.